



PTO/SB/33 (07-05)

United States Patent & Trademark Office; U.S. DEPARTMENT OF COMMERCE

<b>PRE-APPEAL BRIEF REQUEST FOR REVIEW</b>	Docket Number (Optional) 058268.00224
I hereby certify that this correspondence is being deposited with the United States Postal Service with sufficient postage as first class mail in an envelope addressed to "Mail Stop AF, Commissioner of Patents, P.O. Box 1450, Alexandria, VA 22313-1450" [37 CFR 1.8(a)]  on _____  Signature _____  Typed or printed Name _____	Application Number:  10/660,780
	Filed: September 12, 2003
	First Named Inventor:  Nambi SESHADRI
	Art Unit: 2626  Examiner: M. Lerner

**Mail Stop AF**  
Commissioner for Patents  
P.O. Box 1450  
Alexandria, VA 22313-1450

Applicant requests review of the final rejection in the above-identified application. No amendments are being filed with this request.

This request is being filed with a Notice of Appeal.

The review is requested for the reason(s) stated on the attached sheet(s).

Note: No more than five (5) pages may be provided.

I am the

- ☐ Applicant/Inventor.  
☐ assignee of record of the entire interest.  
See 37 CFR 3.71. Statement under  
37 CFR 3.73(b) is enclosed

☒ Attorney or agent of record.  
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June 10, 2008

Date

NOTE: Signatures of all of the inventors or assignees of record of the entire interest or their representative(s) are required. Submit multiple forms if more than one signature is required, see below\*.

☒ \*Total of 1 forms are submitted.



## PATENT APPLICATION

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

In re the Application of:

Confirmation No.: 5880

Nambi SESHADRI

Art Unit: 2626

Application No.: 10/660,780

Examiner: M. LERNER

Filed: SEPTEMBER 12, 2003

Attorney Dkt. No.: 058268.00224

For: CORRELATING VIDEO IMAGES OF LIP MOVEMENTS WITH AUDIO  
SIGNALS TO IMPROVE SPEECH RECOGNITIONS

### **PRE-APPEAL BRIEF REQUEST FOR REVIEW**

Commissioner for Patents  
P.O. Box 1450  
Alexandria, VA 22313-1450

June 10, 2008

Sir:

In accordance with the Pre-Appeal Brief Conference Pilot Program guidelines set forth in the July 12, 2005 Official Gazette Notice, Applicant hereby submits this Pre-Appeal Brief Request for Review of the final rejections of claims 1-15 in the above identified application. Claims 1-15 were finally rejected in the Office Action dated May 5, 2008. Applicant hereby appeals the rejection of claims 1-15 and submits this Pre-Appeal Brief Request for Review.

The Office Action rejected claims 1-3, 5-7, 9-11, and 13-15 under 35 U.S.C. §103(a) over U.S. Patent No. 6,526,395 to Morris (Morris), in view of *Speech Recognition in Adverse Environments using Lip Information*, (1997, IEEE, TENCON – Speech and Image Technologies for Computing and Telecommunications, Pp. 149-152) to Thambiratnam et al. (Tham). Applicant submits that the cited references, taken

individually or in combination, fail to disclose or suggest all of the features recited in any of the pending claims. This failure constitutes a clear error by the Office Action.

As discussed on page 14 of Applicant's previous Response of March 13, 2008, Morris is directed to an apparatus that includes video and audio input units. The apparatus also includes a multi-sensor recognition unit coupled to the video and audio input units, and a processor coupled to the multi-sensor recognition unit. The Office Action admits that Morris failed to disclose the feature of "detecting if the audio signal can be processed," "processing the audio signals if it is detected that the audio signals can be processed," and "processing the video signals if it is detected that at least a portion of the audio signal cannot be processed" (see pages 3 and 4 of the May 5, 2008 Office Action). The Office Action relied on Tham to cure these deficiencies of Morris. Applicant disagrees that Tham cures the deficiencies of Morris with respect to the claims.

Thamb is directed to a speech recognition system that integrates audio voice and video signals of human lips. The system uses a lip tracking mechanism called abstract shape models (ASMs) to perform lip tracking and parameterization which uses a hidden Markov model (HMMs) to perform voice recognition (see Pp. 149 and 150 of Tham). Integration of the video and audio is performed by one of two primary methods of integration which include direct and asynchronous integration. For direct integration, audio and video vectors are combined as input to a recognizer (see Fig. 2 of Tham). For asynchronous integration, the data is merged as system output based on the two results calculated independent of one another. The results of the two systems are converted to probabilities which are combined into a single probability. (see col. 4 lines 41-51 of Tham).

Applicant respectfully submits that the cited references fail to disclose or suggest at least the feature of "processing the video signals based on a detection that at least a portion of the audio signal cannot be processed," as recited in claim 1 and similarly in claims 5 and 9. Specifically, Applicant respectfully submits that Tham fails to cure the

admitted deficiencies of Morris. The combination of Morris and Tham do not teach the above noted feature of the claims and this failure constitutes clear error in the Office Action.

Although, the Office Action of May 5, 2008 relied on the teachings of Morris and Tham as allegedly teaching all of the subject matter of independent claims 1, 5 and 9, the Office Action did not disclose which portions of Tham teach the deficiencies of Morris with respect to “processing the video signals based on a detection that at least a portion of the audio signal cannot be processed,” as recited in claim 1 and similarly in claims 5 and 9. Furthermore, the Office Action alleged that based on the teaching in Tham it would be “obvious to try” the admitted deficiencies of Morris in an effort to teach all of the subject matter of the claims. Applicant submits that regardless of whether an experiment would be obvious to try or not does not negate the need to include a combination of references which explicitly or impliedly teach each and every element of a rejected claim, as required under 35 U.S.C. §103(a). In addition, Applicant has provided detailed reasons why it would not be obvious to try experiments which result in the admitted deficiencies of Morris and the apparent deficiencies in Tham with respect to the claims (see Pp. 16-18 of the Response dated March 13, 2008). The Office Action’s attempt to rebut the strict requirements of what is obvious to try is without merit, especially, the second requirement which requires a finite number of possible solutions (see Pp. 10 and 11 of the Office Action dated May 5, 2008).

Thus, Applicant respectfully submits that Tham fails to cure the admitted deficiencies of Morris. Thus, the Morris and Tham fail to disclose or suggest all of the features recited in claims 1, 5, and 9. This failure constitutes clear error by the Office Action.

Regarding claims 13-15, Applicant respectfully submits that the cited references fail to disclose or suggest at least the feature of “a second processing unit configured to process the video signals when the audio signals cannot be converted into the

recognizable information, wherein the video signals coincide with the segment of the audio signals that cannot be converted into the recognizable information.” In other words, Tham is silent with regards to processing the video signals when the audio signals cannot be converted into the recognizable information. As discussed above, Tham merely describes processing audio and video signals, and no determination is made as to whether a portion of the audio signal can be converted before proceeding to process the associated video signal. Thus, in regards to claims 13-15, Tham fails to cure the admitted deficiencies of Morris. This failure constitutes clear error by the Office Action.

The Office Action rejected claims 4, 8, and 12 under 35 U.S.C. 103(a) as being obvious over Morris and Tham, in view of Bakis. For the reasons discussed in the Response dated March 13, 2008, Bakis fails to cure the significant deficiencies of Morris and Tham.

Applicant submits that the Office Action failed to establish *prima facie* obviousness in rejecting each of claims 1-15. This failure constitutes clear error by the Office Action.

Reconsideration and withdrawal of the rejections, in view of the clear errors in the Office Action, is respectfully requested. In the event this paper is not being timely filed, the applicant respectfully petition for an appropriate extension of time. Any fees for such an extension together with any additional fees may be charged to Counsel's Deposit Account 50-2222.

Respectfully submitted,



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